

FORD:

2010-2012 Transit Connect

ISSUE

Some 2010-2012 Transit Connect vehicles equipped with the 2.0L engine may experience inoperative electric cooling fan due to a blown fuse. Customers may complain their vehicle overheats or A/C doesn't blow cold air. This symptom generally occurs under high ambient temperatures. The malfunction indicator lamp (MIL) may illuminate with diagnostic trouble code (DTC) P1285 (cylinder head temperature (CHT) over temp condition) and/or 1299 (cylinder head over temperature protection active).

ACTION

Follow the Service Procedure steps to correct the condition.

SERVICE PROCEDURE

1. Using Integrated Diagnostic System (IDS) Datalogger, command the low speed fan (LSF) and high speed fan (HSF) on. Do the fans operate in both high speed and low speed mode?
 - a. Yes - This procedure does not apply, refer to the Powertrain Control/Emissions Diagnosis (PC/ED) Section 3, Symptom Charts, for normal diagnostics.
 - b. No - Go to Step 2.
2. Check F17 (HSF fuse) for open circuit. Is F17 open?
 - a. Yes - Go to Step 3.
 - b. No - This procedure does not apply, refer to the PC/ED, Section 3, for normal diagnostics.
3. Check the LSF resistor for an open circuit. Is the LSF resistor open?
 - a. Yes - Replace the HSF F17 and the LSF fan resistor (which can cause the HSF F17 to blow). Proceed to Step 5.
 - b. No - Go to Step 4.
4. Check the total voltage and amperage draw of motors 1 and 2 at C1077 and C1074. Check each circuit separately.
 - a. Using IDS Datalogger, command the high speed fan on and wait for 3-4 seconds until the fan operation stabilizes.
 - b. Use the digital volt/ohm meter (DVOM) inductive pickup to check the amperage draw on the B+ circuits 15S-PA 16 and 15S-PA6, at C1077 and C1074. Measure and record the total electric current to the cooling fan motors 1 and 2.
 - c. Using a DVOM, check the voltage on the B+ circuits 15S-PA 16 and 15S-PA6, at C1077 and C1074 (pin 1). Measure and record the total voltage at the cooling fan motors 1 and 2.
 - d. Compare recorded readings to the chart. (Figure 1) Does your measured reading for voltage and amperage lie within the shaded area of the graph shown? (Figure 1)
 - (1) Yes - Do not replace the cooling fan. Fan operating as intended. Proceed to Step 5.
 - (2) No - Replace the cooling fan and shroud assembly. Proceed to Step 5.
5. Reprogram the powertrain control module (PCM) to the latest calibration using IDS release 76.04 and higher or 77.01 and higher. This new calibration is not included in the VCM 2012.1 DVD. Calibration files may also be obtained at www.motorcraft.com.
6. If necessary, check and adjust coolant level.

NOTE: The information in Technical Service Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers". Do not assume that a condition described affects your car or truck. Contact a Ford or Lincoln dealership to determine whether the Bulletin applies to your vehicle. Warranty Policy and Extended Service Plan documentation determine Warranty and/or Extended Service Plan coverage unless stated otherwise in the TSB article. The information in this Technical Service Bulletin (TSB) was current at the time of printing. Ford Motor Company reserves the right to supersede this information with updates. The most recent information is available through Ford Motor Company's on-line technical resources.

PART NUMBER	PART NAME
96FZ-9A819-A	Resistor
9T1Z-8C607-A	Cooling Fan

WARRANTY STATUS: Eligible Under Provisions Of New Vehicle Limited Warranty Coverage
Warranty/ESP coverage limits/policies/prior approvals are not altered by a TSB. Warranty/ESP coverage limits are determined by the identified causal part and verified using the OASIS part coverage tool.

120114B	2010-2012 Transit Connect: Diagnose, Replace The Fuse, Test Resistor, And Reprogram The PCM (Do Not Use With Any Other Labor Operations)	0.7 Hr.
120114C	2010-2012 Transit Connect: Diagnose, Replace The Fuse, Test Resistor, Replace The Fan Module And Reprogram The PCM (Do Not Use With Any Other Labor Operations)	0.9 Hr.

OPERATION	DESCRIPTION	TIME	DEALER CODING	CONDITION
120114A	2010-2012 Transit Connect: Diagnose, Replace The Fuse, Resistor And Reprogram The PCM (Do Not Use With Any Other Labor Operations)	0.6 Hr.	BASIC PART NO. 9A819	CODE 42

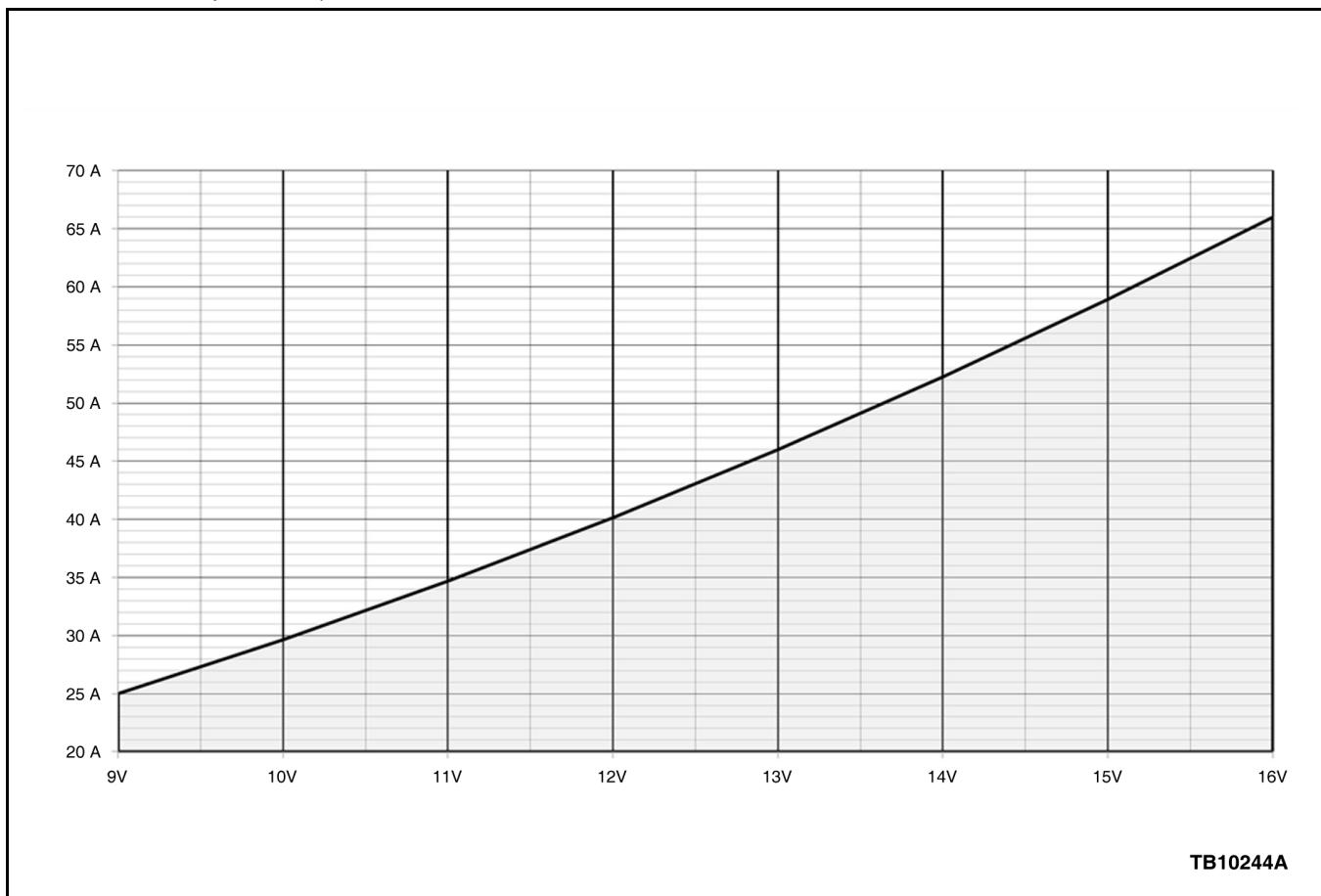


Figure 1 - Article 12-1-14